

7. (Amended) An amplifier circuit for amplifying a radio frequency (RF) signal, the RF signal comprising an amplitude modulated carrier having an amplitude modulation bandwidth, comprising:

a transistor having an input for receiving the RF signal;

a direct current (DC) bias voltage source;

a biasing circuit, the biasing circuit comprising:

an active element having an input connected to the DC bias voltage source and an output, wherein during its operation the active element maintains a relatively low output impedance over a bandwidth comparable to the amplitude modulation bandwidth of the RF signal; and

a resistor having an input connected to the active element output and an output connected to the transistor input, such that the DC bias voltage source provides a fixed DC voltage at the resistor input, regardless of voltage fluctuations of the RF signal received at the transistor.

13. (Amended) A wireless communication device comprising an amplifier circuit for amplifying a radio frequency (RF) signal, the RF signal comprising an amplitude modulated carrier having an amplitude modulation bandwidth, the amplifier circuit comprising:

a transistor having an input for receiving the RF signal;

a direct current (DC) bias voltage source;

a biasing circuit, the biasing circuit comprising:

an active element having an input connected to the DC bias voltage source and an output, wherein during its operation the active element maintains a relatively low output impedance over a bandwidth comparable to the amplitude modulation bandwidth of the RF signal; and

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a resistor having an input connected to the active element output and an output connected to the transistor input, such that the DC bias voltage source provides a fixed DC voltage at the resistor input, regardless of voltage fluctuations of the RF signal received at the transistor.

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18. (Amended) A gate bias circuit for biasing a gate of a field effect transistor used for amplifying a radio frequency (RF) signal, the RF signal comprising an amplitude modulated carrier having an amplitude modulation bandwidth, the gate biasing circuit comprising:

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an active element having an input, an output and an operational amplifier coupled to the output of the active element, wherein during its operation the operational amplifier maintains a relatively low output impedance over a bandwidth comparable to the amplitude modulation bandwidth; and

a resistor having an input connected to the active element output, wherein a direct current (DC) bias voltage applied at the active element input produces a fixed DC voltage at the resistor input.

REMARKS

In the specification, a minor change has been made to correct an inadvertent grammatical error.

Claims 1-2, 4-8, 10-14, 16-18 and 20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,320,352 issued to Rubin et al. ("Rubin") in view of U.S. Patent No. 4,107,621 issued to Furutani et al ("Furutani"). In response, independent claims 1, 7, 13 and 18 have been amended to specify that during its operation the active element of a biasing circuit maintains a relatively low output impedance over a bandwidth comparable to the amplitude modulation bandwidth of a RF input signal. Support for such amendment can be found, for example, on *page 7, lines 2-8* of the above-identified patent application. For reasons